

BookletChart™

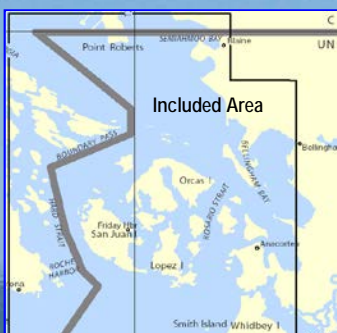


Strait of Juan de Fuca to Strait of Georgia

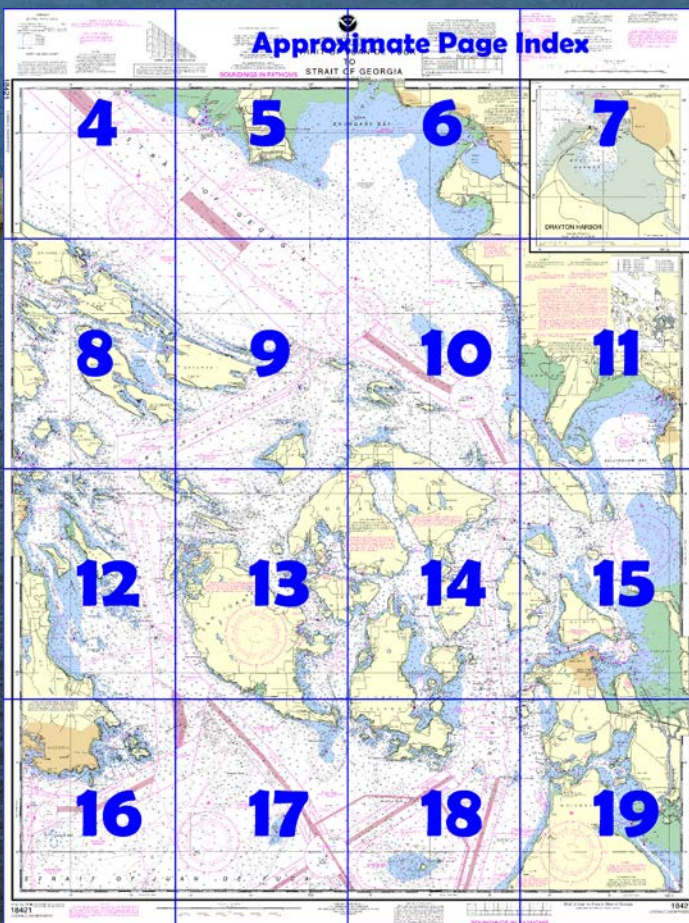
NOAA Chart 18421

A reduced-scale NOAA nautical chart for small boaters

When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=18421>.



(Selected Excerpts from Coast Pilot)
Strait of Juan de Fuca, E end
Hein Bank, with a least depth of 2½ fathoms, lies 8.5 miles SE of Discovery Island; it is about 2 miles long in a N direction, within the 10-fathom curve, and 0.8 mile wide. The shoalest part of the bank is covered with thick kelp in the summer. It is marked by two lighted buoys, the northernmost is equipped with a racon.
Smith Island, 5 miles W of Whidbey Island and 8 miles ESE of Hein Bank, is irregular in shape and about 0.5 mile long. A rocky bank, covered with kelp, extends about 2 miles W of the

island over depths of 3 to 6 fathoms. A rock that bares at lowest tides is about 0.3 mile W of Smith Island. **Smith Island Light** (48°19'06"N., 122°50'38"W.), 97 feet above the water is shown from a 45-foot skeleton tower near the W extremity of the island.

A **restricted area** of an air-to-surface weapon range is W of Smith Island. (See **334.1180**, chapter 2, for limits and regulations.)

Naval restricted areas are adjacent to the northernmost part of the W shore of Whidby Island.

In accordance with the Cooperative Vessel Traffic Service, the United States and Canada, in cooperation with industry and the British Columbia Coast Pilots have established a **Special Operating Area** at the intersection of Haro Strait and Boundary Pass in the vicinity of Turn Point Light (48°41'20"N., 123°14'15"W.). (See Coast Pilot for details.) All VTS participants will verbally communicate with Victoria Traffic on VHF-FM channel 11 when 3 miles from Turn Point. VTS participants are expected to make safe arrangements with other VTS participants within or near the **SOA**.

Regulated navigation area.—Due to heavy vessel concentrations, the waters of the Strait of Juan de Fuca, the San Juan Islands, the Strait of Georgia, and Puget Sound, and all adjacent waters, are a regulated navigation area. (See **165.1 through 165.13 and 165.1301**, chapter 2, for regulations.)

Caution.—Since logging is one of the main industries of the region, free-floating logs and submerged deadheads or sinkers are a constant source of danger in the Strait of Juan de Fuca and Puget Sound. The danger is increased during freshets, after storms, and unusually high tides. **Deadheads** or **sinkers** are logs which have become adrift from rafts or booms, have become waterlogged, and float in a vertical position with one end just awash, rising and falling with the tide.

Tidal currents.—In Haro Strait and Boundary Pass, the flood current sets N; and the ebb current sets in the opposite direction. The ebb usually runs longer and has a greater velocity. At the N entrance to Boundary Pass, the flood sets E along the N and S sides of Sucia Islands and across Alden Bank; the velocity is about 1 to 2 knots. The current has moderate velocity between Sucia and Orcas Islands. There is a large, daily inequality in the current. (See Tidal Current Tables for predicted times and velocities.) Heavy, dangerous tide rips occur between East Point on Saturna Island and Patos Island, and for two miles N in the Strait of Georgia. Tide rips also occur on the ebb between Henry Island and Turn Point, as well as around Turn Point where the ebb may attain a velocity of 6 knots during large tides. The flood current sets E from Discovery Island across the S end of Haro Strait until close to San Juan Island. This E set is especially noticeable during the first half of the flood.

Currents.—In the S end of San Juan Channel, between Goose Island and Deadman Island, the average current velocity is 2.6 knots on the flood and ebb, however, maximum flood currents of 5 knots or more cause severe rips and eddies. Daily current predictions for this location may be obtained from the Tidal Current Tables.

Tides and Currents.—For times and velocities of current in Rosario Strait and vicinity, the Tidal Current Tables should be consulted. The currents in Lopez, Thatcher, and Obstruction Passes are reported to attain velocities of 3 to 7 knots. This should be kept in mind when proceeding through Rosario Strait, particularly at night or in thick weather. On the ebb of a large tide off the entrance to the passes, a S wind causes tide rips that are dangerous to small craft.

U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Seattle

Commander
13th CG District
Seattle, WA

(206) 220-7001

Navigation Managers Area of Responsibility



NOAA's navigation managers serve as ambassadors to the maritime community.

They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit nauticalcharts.noaa.gov/service/navmanagers

To make suggestions or ask questions online, go to nauticalcharts.noaa.gov/inquiry.

To report a chart discrepancy, please use ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx.

Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area.

These volumes are available online at <http://www.navcen.uscg.gov>

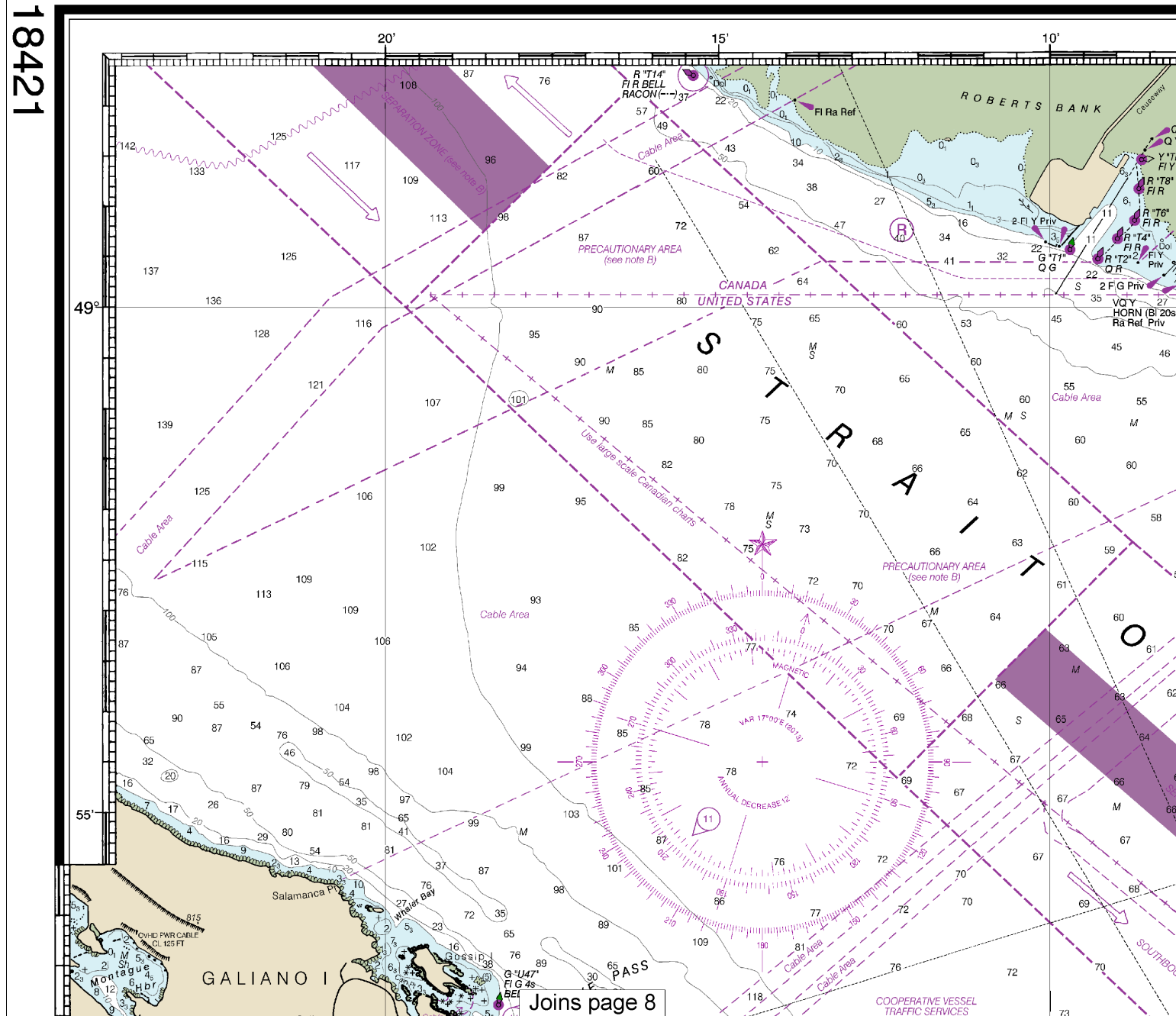
COLREGS, 80.1385, 80.1390 (see note A)
 International Regulations for Preventing Collisions at Sea, 1972.
 The entire area of this chart falls seaward of the COLREGS Demarcation Line.

CABLE AND PIPELINE AREAS
 The cable and pipeline areas falling within the areas of the larger scale Canadian charts are not shown on this chart.

CAUTION
 Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.
 Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
 Station positions are shown thus:
 ○ (Accurate location) ◐ (Approximate location)

NOAA encourages users to submit inquiries, discrepancies or comments about this chart at <http://www.nauticalcharts.noaa.gov/staff/contact.htm>.

18421



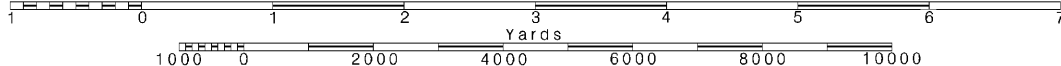
4

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:80,000
 Nautical Miles

See Note on page 5.



For Symbols and Abbreviations see Chart No. 1

HEIGHTS

Heights in feet above Mean High Water in U.S. Territory.
Contour and summit elevation values are in feet and refer to Mean Sea Level.
Heights expressed in feet above Higher High-Water.
Larger Tides in Canadian Territory.

Mercator Projection

Scale 1:80,000 at Lat 48° 36'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS

(FATHOMS AND FEET TO ELEVEN FATHOMS)

AT MEAN LOWER LOW WATER IN U.S. TERRITORY
AT LOWEST NORMAL TIDES IN CANADIAN TERRITORY

SOUNDINGS IN FATHOMS
(FATHOMS AND FEET TO 11 FATHOMS)

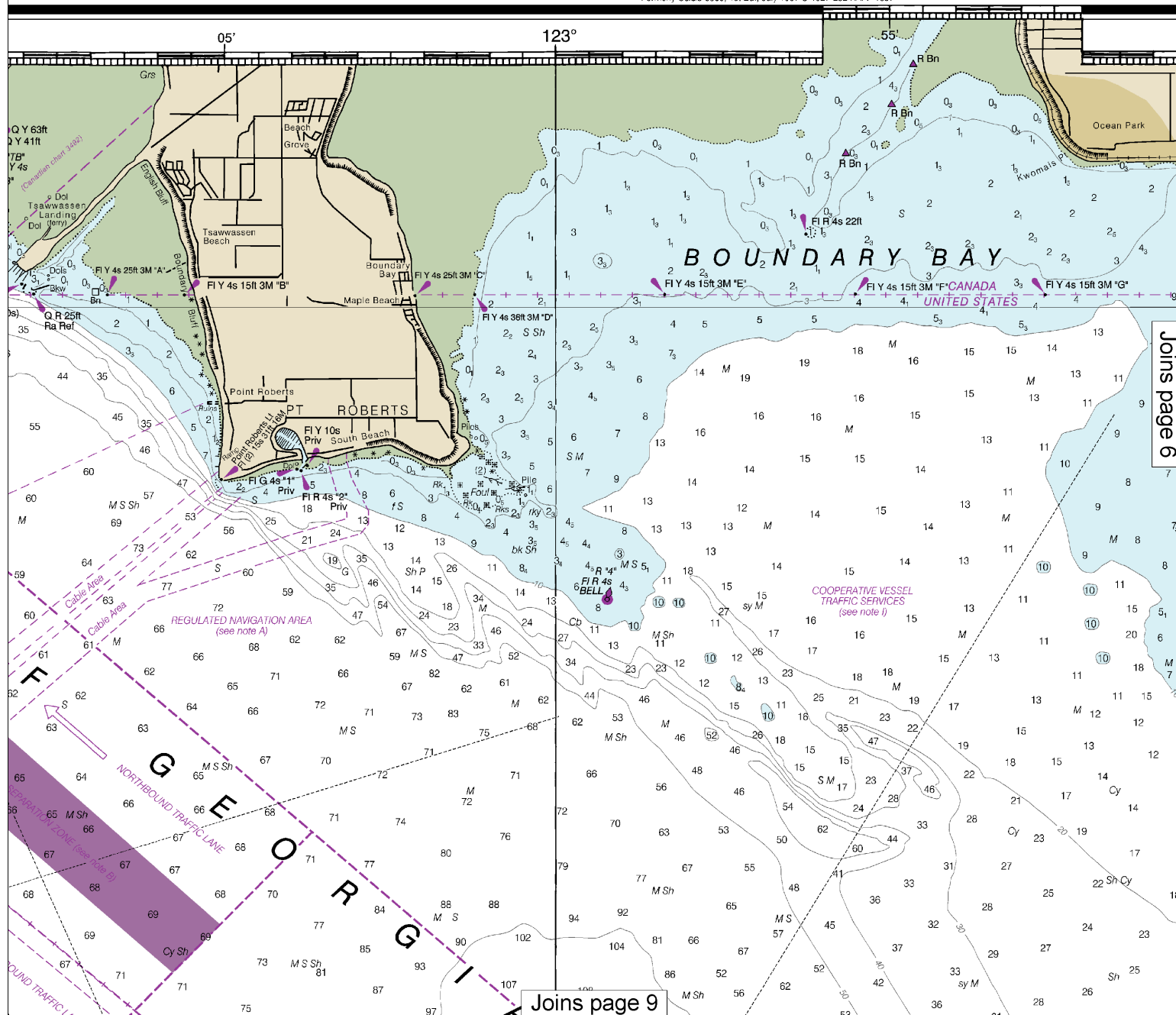


THE NATION'S CHARTMAKER SINCE 1807
UNITED STATES - WEST COAST

WASHINGTON

STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA

Formerly C&GS 6380, 1st Ed., July 1907 C-1927-262 KAPP 1657



This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:106666. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.

5



THE NATION'S CHARTMAKER SINCE 1807
UNITED STATES - WEST COAST

WASHINGTON

STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA

Formerly C&GS 6380, 1st Ed., July 1907 C-1927-282 KAPP 1657

PUGET SOUND HARBOR SAFETY PLAN

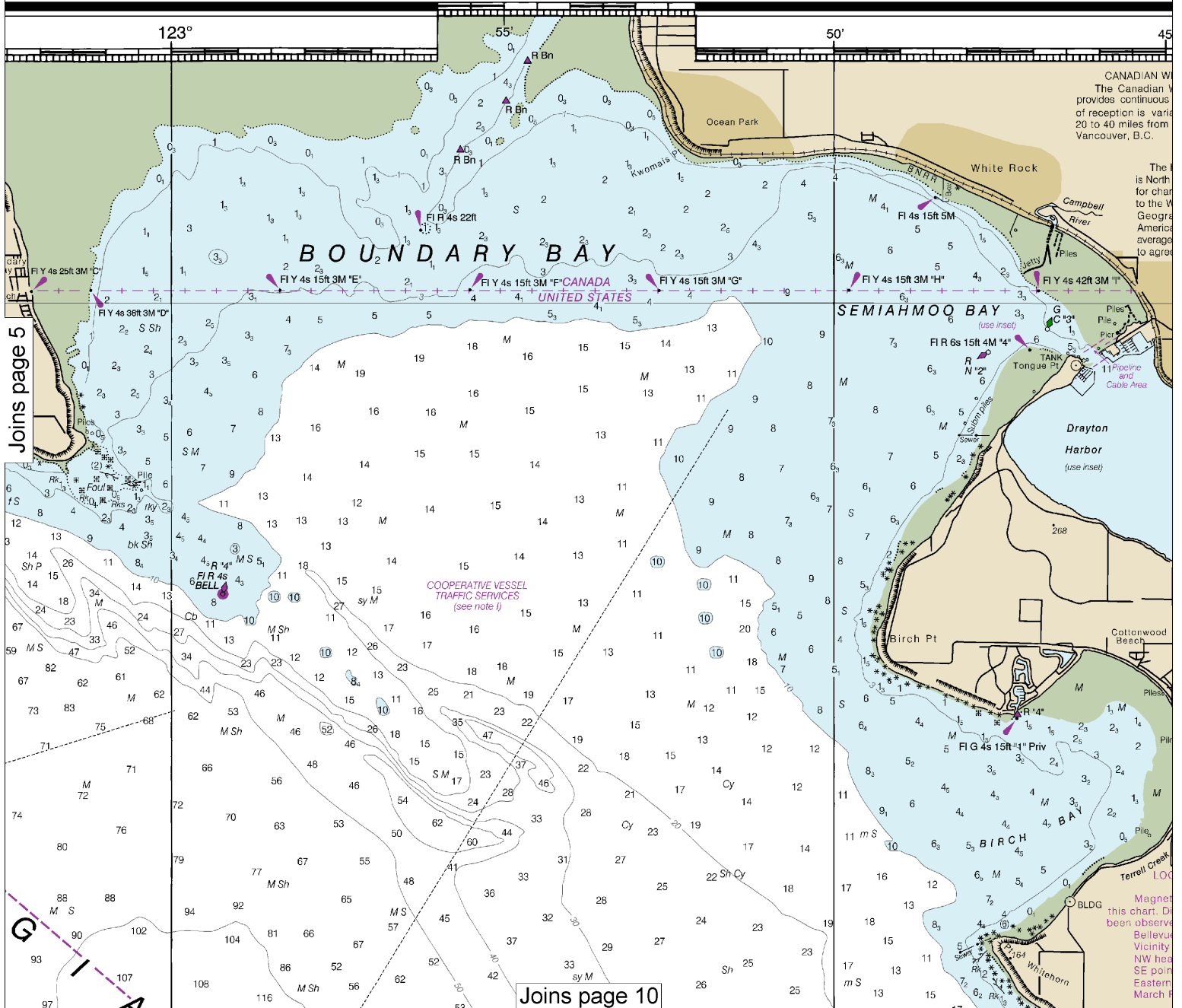
The US Coast Guard and the Puget Sound Harbor Safety Committee have developed and adopted a Harbor Safety Plan that formally established a set of Standards of Care for Puget Sound and surrounding waters. These Standards of Care are intended to supplement existing regulations by documenting good marine practices for a variety of operations including tug escorts, pilotage, anchoring, lightering, and providing additional information on required charts, Aids to Navigation and Emergency Response. If your vessel does not already have a copy of the Puget Sound Harbor Safety Plan, log on to http://pshsc.org/about/harbor_safety_plan or contact the Seattle Exchange at (206) 443-3830.

Additional information can be obtained at nauticalcharts.noaa.gov

TIDAL INFORMATION

NAME	PLACE (LAT/LONG)	Height referred to datum of sea	
		Mean Higher High Water	Mean High Water
Patos Island Wharf	(48°47' N/122°58' W)	8.6 feet	7.9 feet
Bellingham	(48°45' N/122°30' W)	8.5	7.6
Blaine	(49°00' N/122°46' W)	9.5	8.7
Roche Harbor	(48°37' N/123°09' W)	7.6	7.0

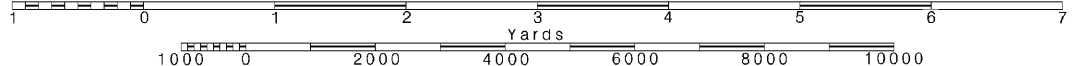
Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov> (Mar 2013)



Printed at reduced scale.

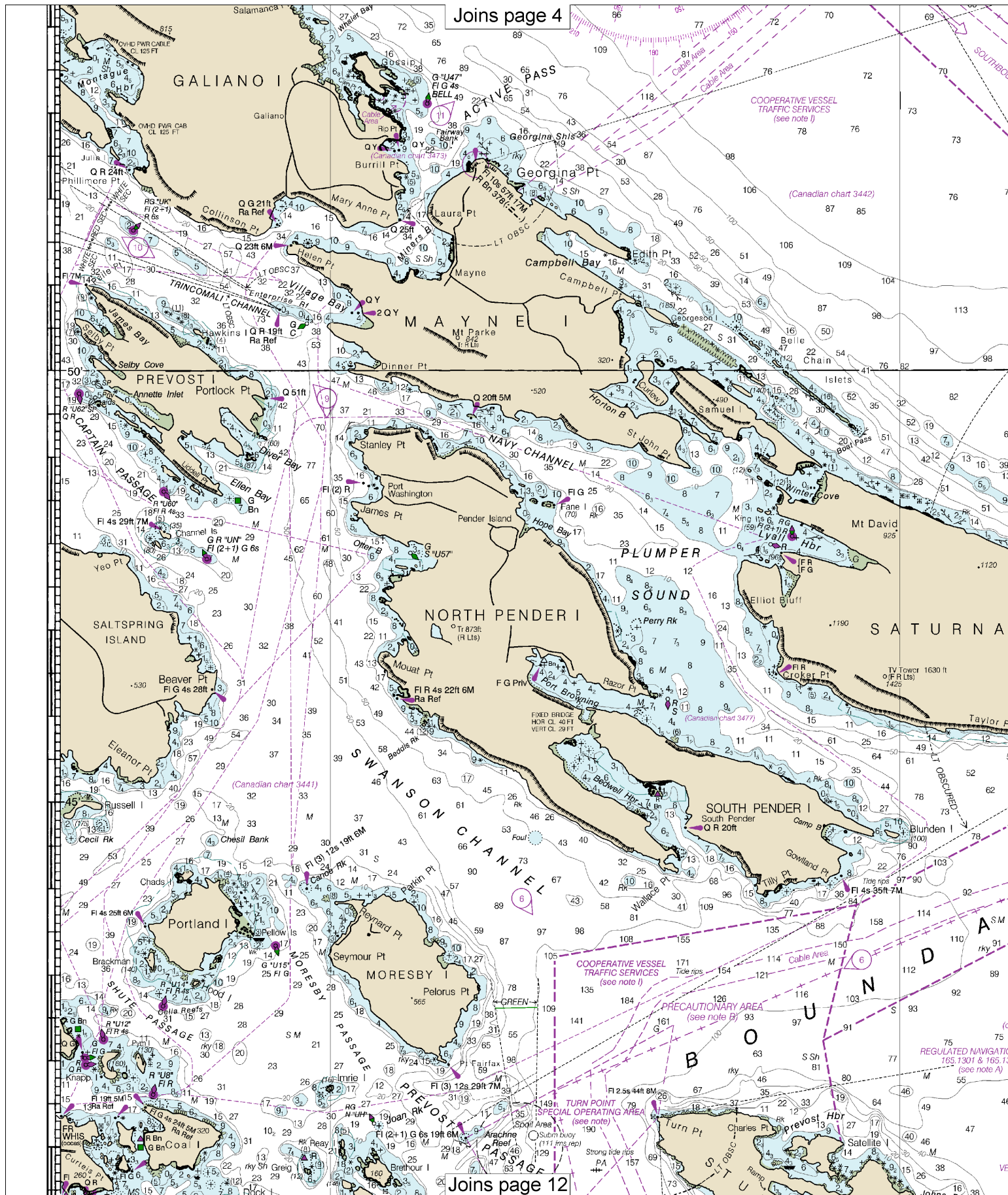
SCALE 1:80,000
Nautical Miles

See Note on page 5.



Note: Chart grid lines are aligned with true north.

7



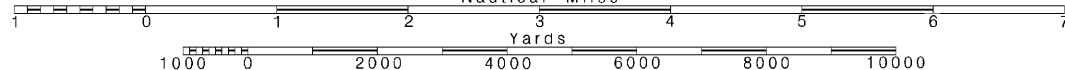
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Note: Chart grid lines are aligned with true north.

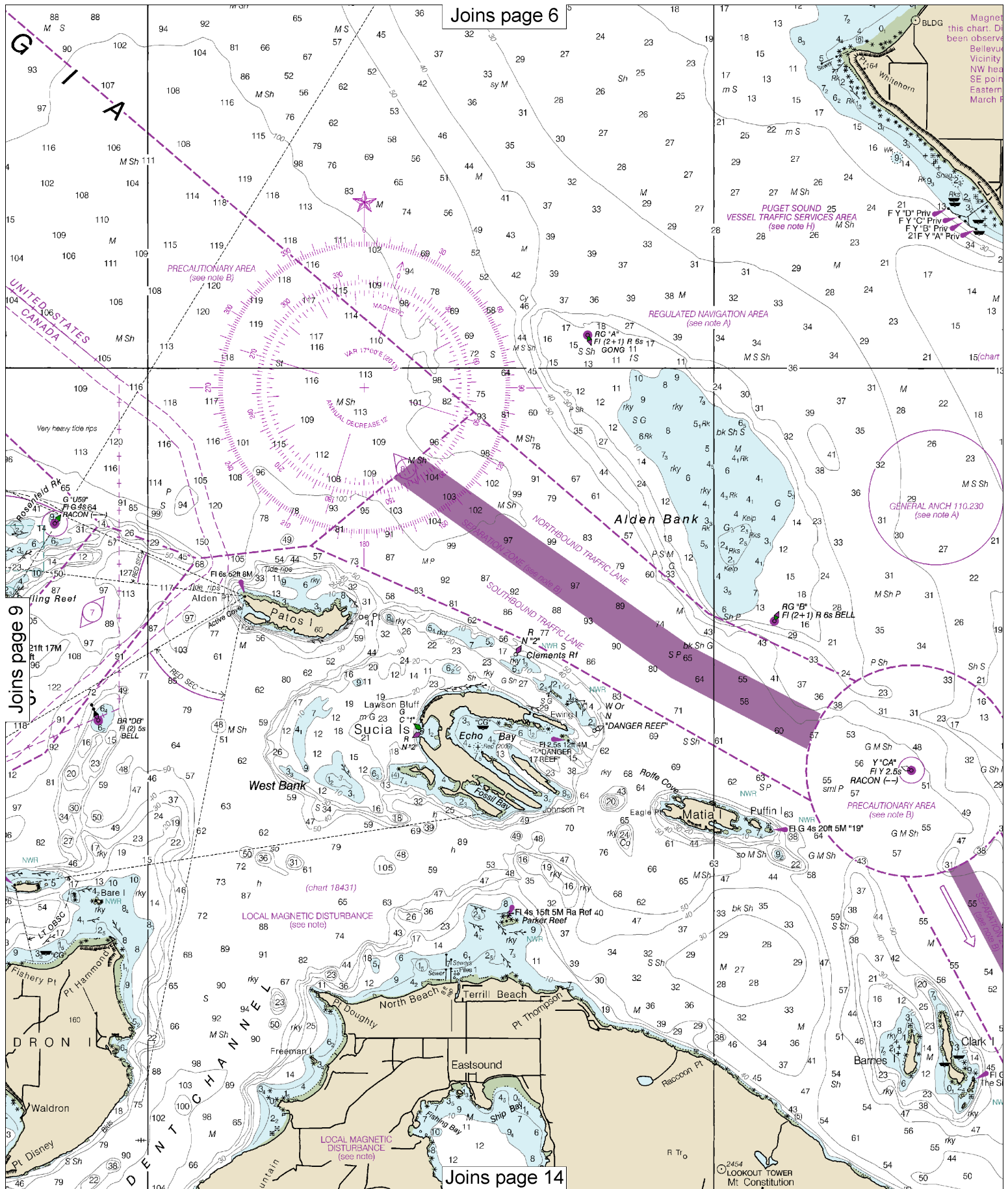
Printed at reduced scale.

SCALE 1:80,000
Nautical Miles

See Note on page 5.







etic disturbances exist within the area of Differences from the normal variation have ved as follows:
ue Point in Haro Strait 4"
y of Point Doughty more than 2"
ad of East Sound 2"
int of Guemes Island 14"
n shore of Burrows Bay 4"
Point 2"



CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

NOTE C

For Canadian Firing Practice and Exercise Areas see Canadian Notice to Mariners No. 35 of each year.

NOTE D

Mariners should use caution as naval craft may be maneuvering within the areas. For further information, consult Local Notice to Mariners.

NOTE B

TRAFFIC SEPARATION SCHEME

One-way traffic lanes overprinted on this chart, are RECOMMENDED for use by all vessels traveling between the points involved. They have been designated to aid in the prevention of collisions in the Strait of Juan de Fuca and Strait of Georgia waters, but are not intended in any way to supersede or alter the applicable Rules of the Road. Separation zones are intended to separate inbound and outbound traffic and to be free of ship traffic. Separation Zones should not be used except for crossing purposes. When crossing traffic lanes and separation zones, use extreme caution.

Precautionary Areas have been established where major lanes merge and cross the traffic separation scheme. It is recommended that vessels proceed with caution in these areas. Wherever practical, vessels entering or leaving the system should do so at these precautionary areas. For more information regarding Traffic Separation Scheme procedures and regulations, see 33 CFR 167 and/or Chapter 2 of the U.S. Coast Pilot.

For information governing the VESSEL TRAFFIC MANAGEMENT AND INFORMATION SYSTEM for the coastal waters of southern British Columbia, see National Geospatial-Intelligence Agency Publication 154, Sailing Directions (enroute) for British Columbia, and the Sailing Directions British Columbia Coast (South Portion) Volume 1, published by the Canadian Hydrographic Service.

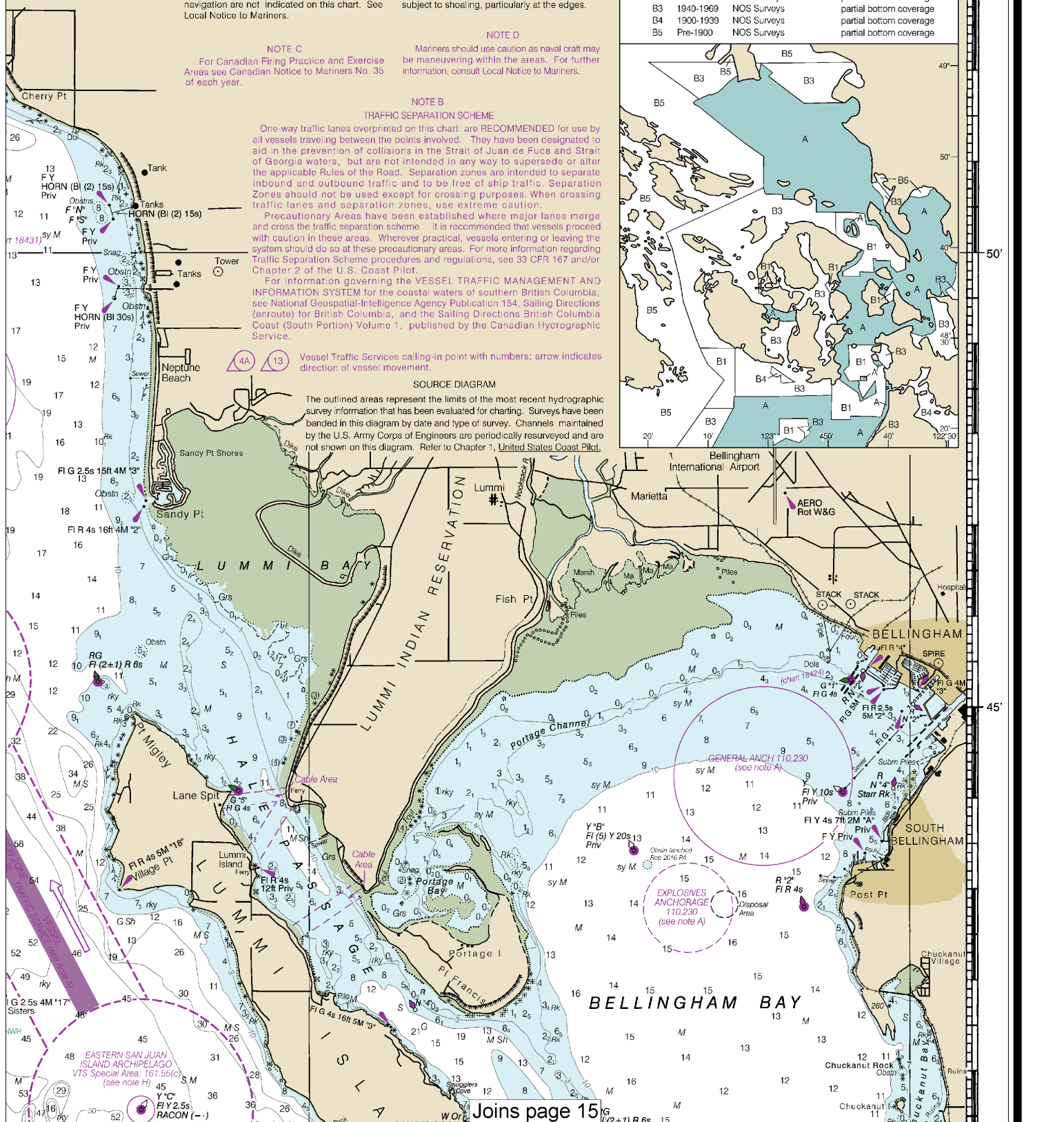
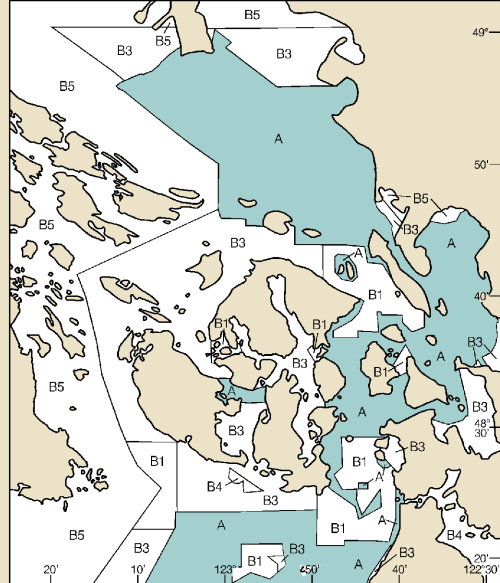
Vessel Traffic Services calling-in point with numbers; arrow indicates direction of vessel movement.

SOURCE DIAGRAM

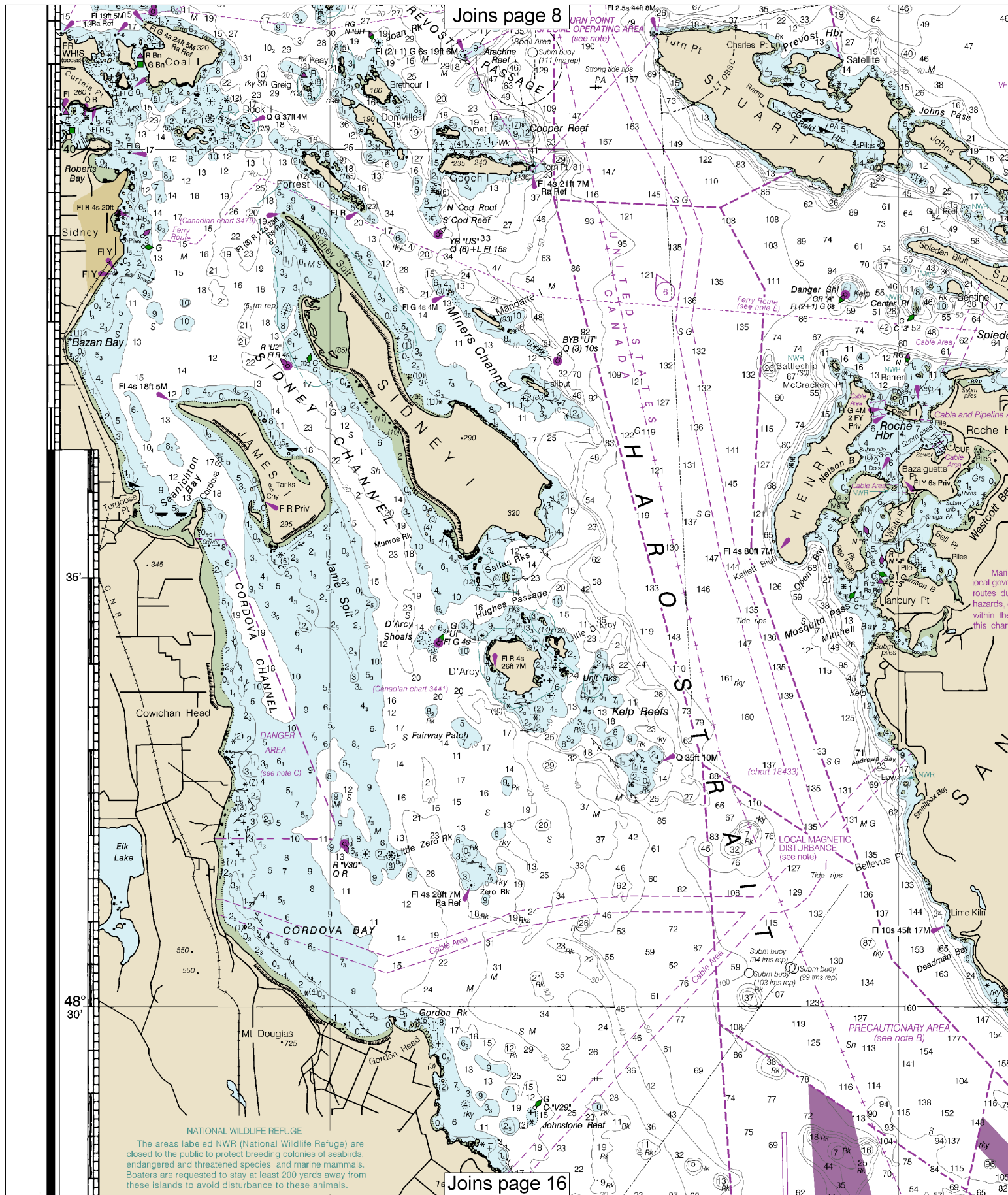
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

SOURCE

A	1990-2014	NOS Surveys	full bottom coverage
B1	1990-2000	NOS Surveys	partial bottom coverage
B3	1940-1969	NOS Surveys	partial bottom coverage
B4	1900-1939	NOS Surveys	partial bottom coverage
B5	Pre-1900	NOS Surveys	partial bottom coverage



Joins page 15



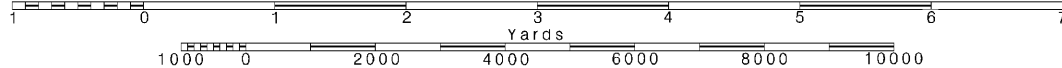
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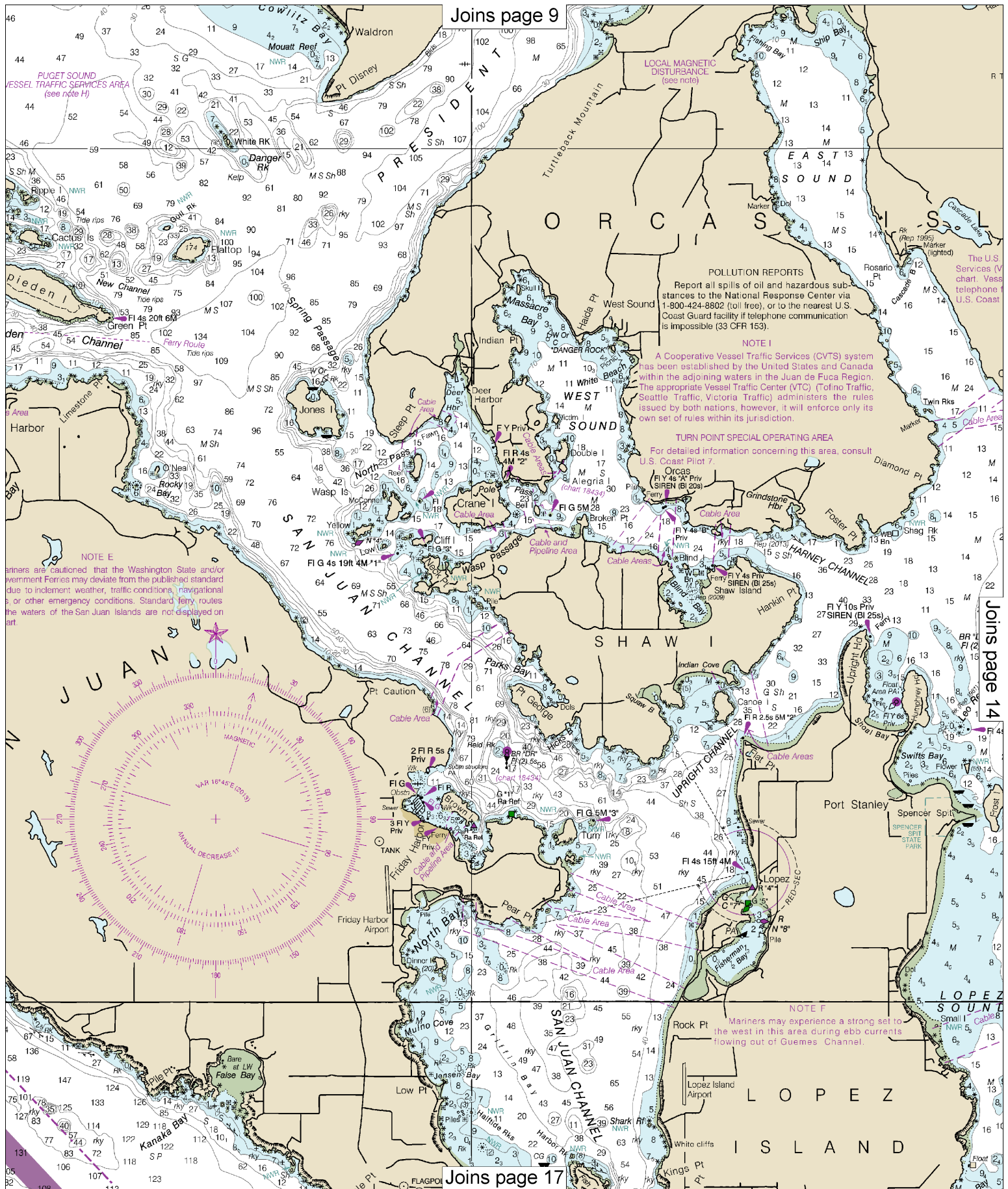
Note: Chart grid lines are aligned with true north.

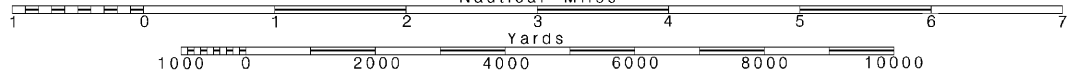
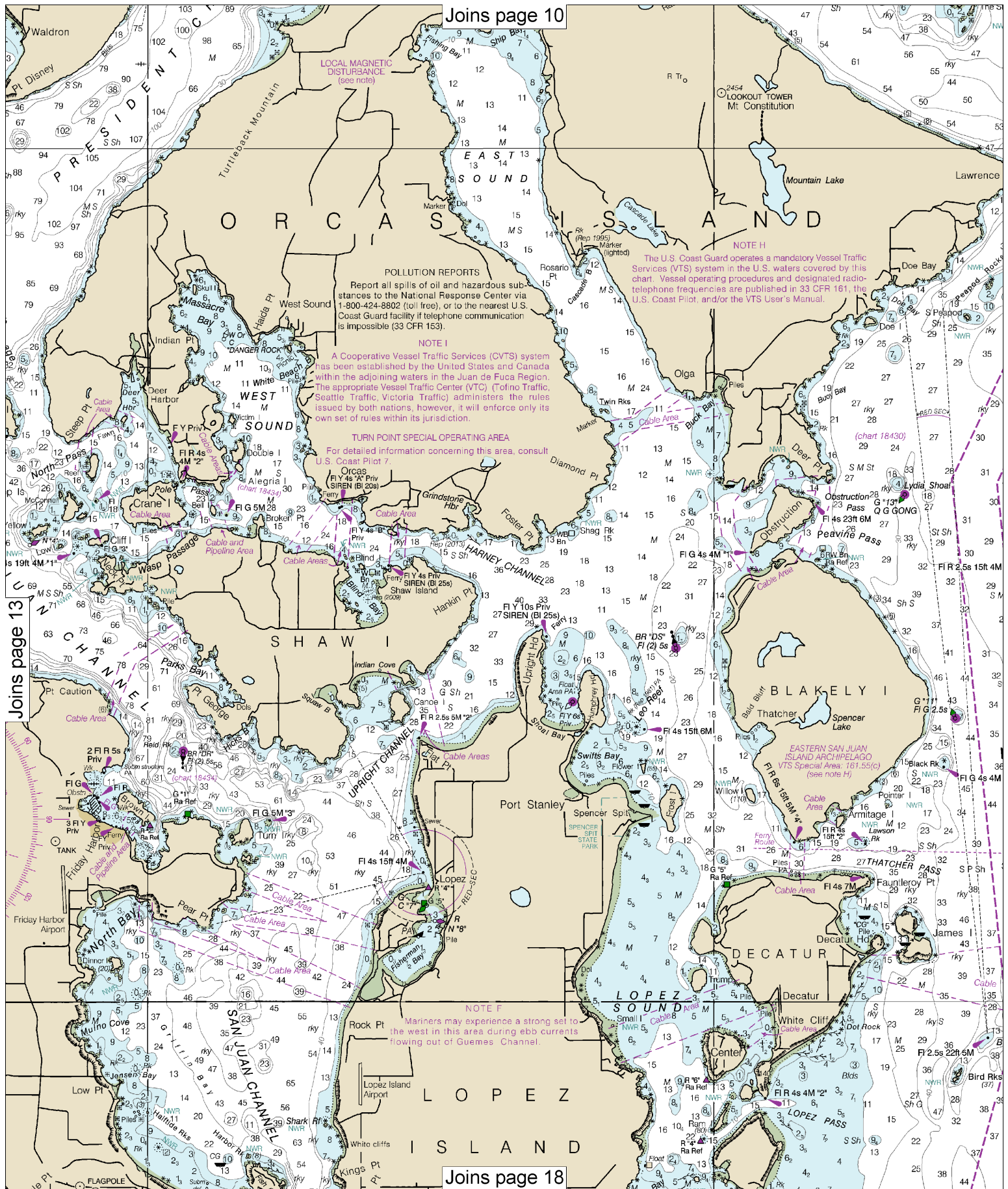
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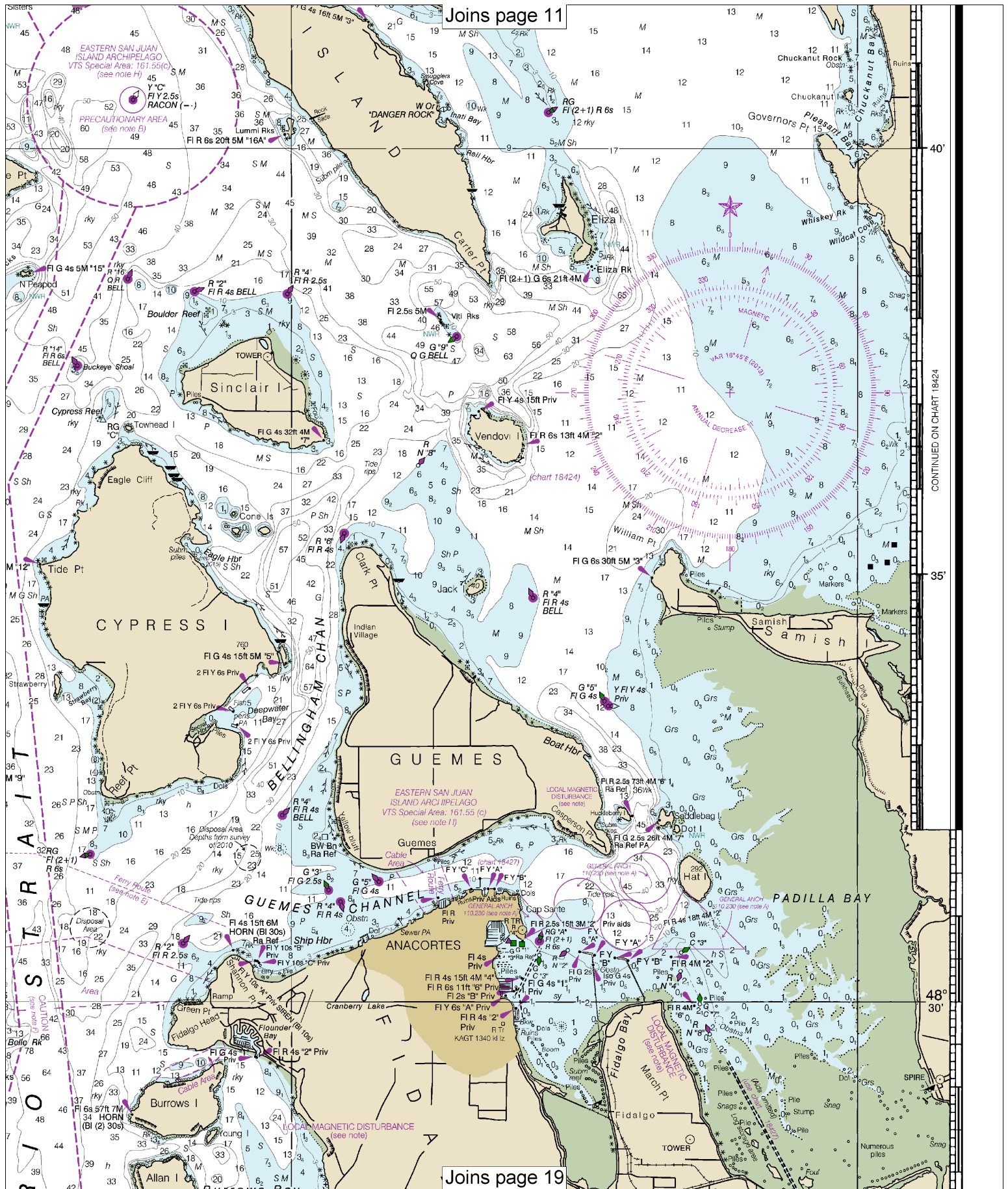
SCALE 1:80,000
Nautical Miles

See Note on page 5.





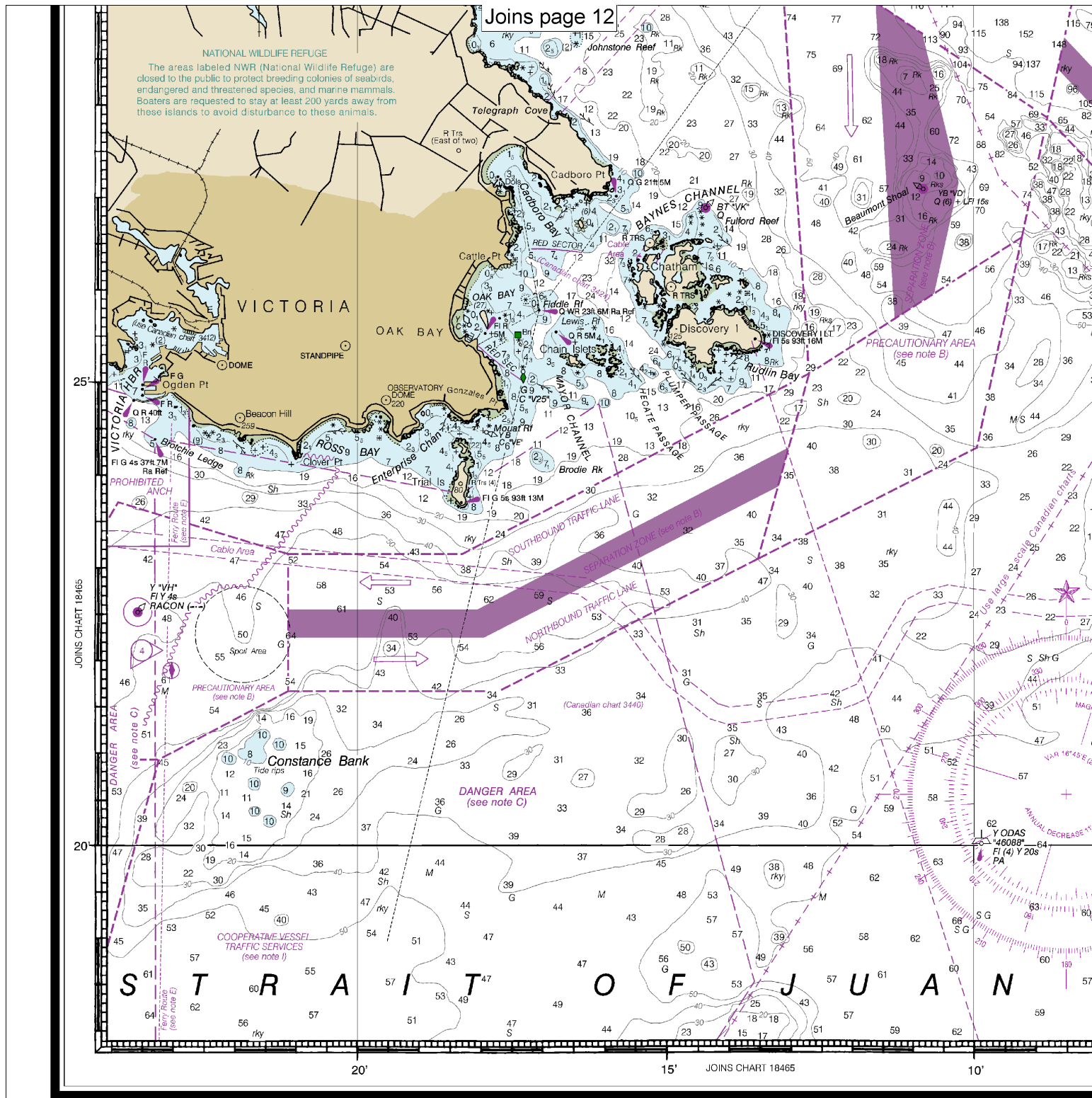




Joins page 11

Joins page 19

CONTINUED ON CHART 18424



51st Ed., May 2013. Last Correction: 11/30/2016. Cleared through:
LNM: 4816 (11/29/2016), NM: 5016 (12/10/2016), CHS: 1116 (11/25/2016)

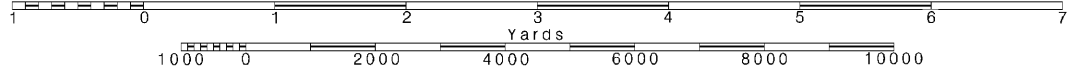
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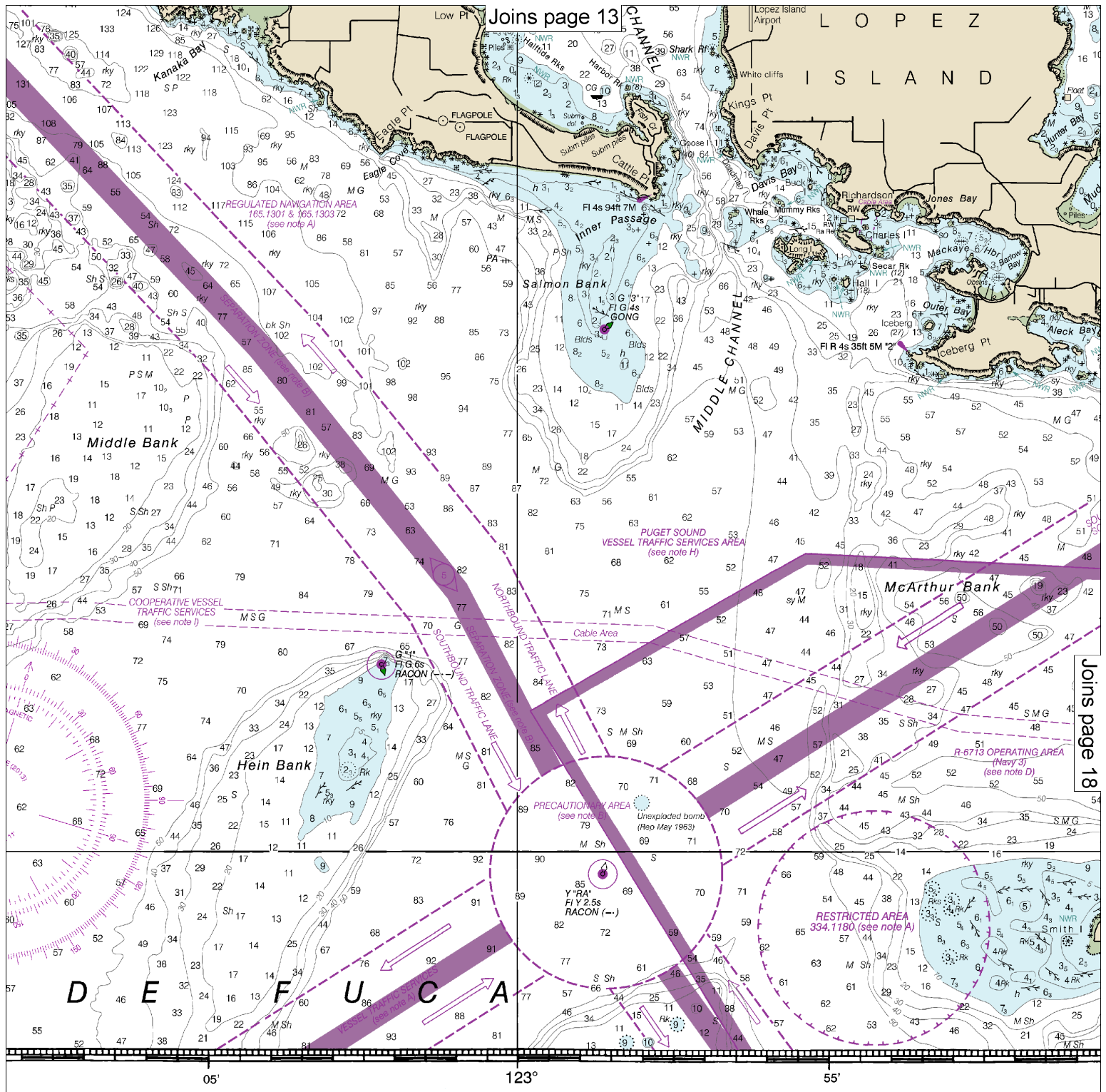
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:80,000
Nautical Miles

See Note on page 5.

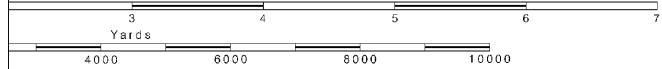




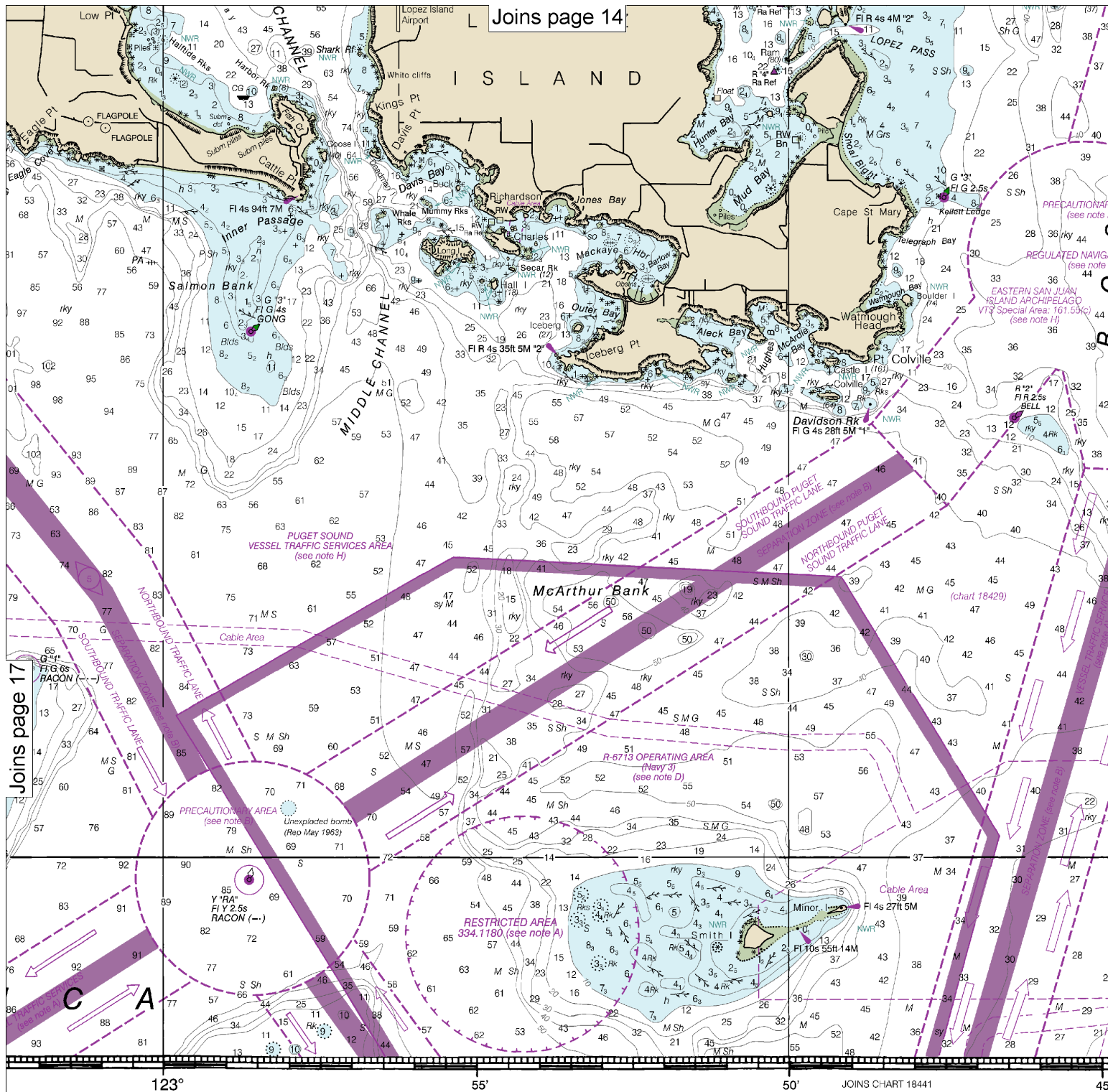
Joins page 13

Joins page 18

SCALE 1:80,000
Nautical Miles



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U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY



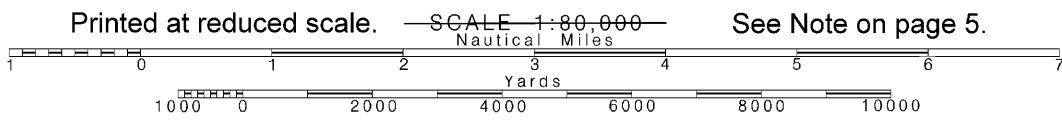
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 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NATIONAL OCEAN SERVICE
 COAST SURVEY

FATHOMS	1	2	3
FEET	6	12	18
METERS	1	2	3

SOUND

(FAT)

Note: Chart grid lines are aligned with true north.



See Note on page 5.



VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!

Quick References

Nautical chart related products and information	—	http://www.nauticalcharts.noaa.gov
Interactive chart catalog	—	http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml
Report a chart discrepancy	—	http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx
Chart and chart related inquiries and comments	—	http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs
Chart updates (LNM and NM corrections)	—	http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
Coast Pilot online	—	http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm
Tides and Currents	—	http://tidesandcurrents.noaa.gov
Marine Forecasts	—	http://www.nws.noaa.gov/om/marine/home.htm
National Data Buoy Center	—	http://www.ndbc.noaa.gov/
NowCoast web portal for coastal conditions	—	http://www.nowcoast.noaa.gov/
National Weather Service	—	http://www.weather.gov/
National Hurricane Center	—	http://www.nhc.noaa.gov/
Pacific Tsunami Warning Center	—	http://ptwc.weather.gov/
Contact Us	—	http://www.nauticalcharts.noaa.gov/staff/contact.htm



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This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.